UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,521	12/07/2001	Douglas M. Dillon	PD-N970636A	1352

20991 7590 05/02/2006

THE DIRECTV GROUP INC
PATENT DOCKET ADMINISTRATION RE/R11/A109
P O BOX 956
EL SEGUNDO, CA 90245-0956

EXAMINER	
TRAN, NGHI V	

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/010,521	DILLON ET AL.	
	Examiner	Art Unit	
	Nghi V. Tran	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-18,21-24,26-28,31-34,36,37,40-48,51-54,56 and 57* is/are pending in the application.

4a) Of the above claim(s) *2-16 and 40-46* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17,18,21-24,26-28,31-34,36,37,47,48,51-54,56 and 57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 17 is objected to because of the following informalities: the last phrase in the claim, "the so adjusted packet to the second apparatus" [emphasis added] appears to be a typo error. Appropriate correction is required.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 03, 2006 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 17-18, 21, 23, 26-28, 31, 33, 37, 47-48, 51, 53, and 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jain et al., U.S. Patent No. 5,675,742 (hereinafter Jain), in view of Ramanathan et al., U.S. Patent No. 6,076,113 (hereinafter Ramanathan).

5. With respect to claims 17, 23, 27, 33, 47, and 53, Jain teaches a gateway [i.e. routers which are also known as intermediate systems or gateways **9**, col.5, lns.45-46] for use in a system wherein a first apparatus [i.e. one of the end system **7**, see fig.1], said gateway, and a second apparatus [i.e. other of the end system **7**, see fig.1] are coupled to a TCP/IP network, wherein the source apparatus, said gateway, and the second apparatus have different IP addresses [fig.1], said gateway comprising:

- a packet receiving unit that is configured to receive a packet addressed at the IP level from the first apparatus to the second apparatus [col.5, ln.44 – col.6, ln.34]; and
- a throttling unit that is configured to throttle the user of the first apparatus by adjusting the transport level window size of the packet in accordance with bandwidth usage associated with the user of the first apparatus, and sending the adjusted packet to the second apparatus [col.10, ln.49 – col.11, ln.4]
- wherein the packet received by said packet receiving unit has, as its source IP address, the IP address of the first apparatus, and has, as its destination IP address, the IP address of the second apparatus [col.6, lns.17-55].

However, Jain does not explicitly show a service plan determining unit that is configured to determine a level of service subscribed to by a user of the first apparatus and a throttling unit that is configured to throttle the user of the first apparatus by adjusting the transport level window size of the packet in accordance with the level of service subscribed to by the user of the first apparatus.

In a communication system, Ramanathan discloses or suggests a service plan determining unit that is configured to determine a level of service subscribed to by a user of the first apparatus [col.4, lns.25-65] and a throttling unit that is configured to throttle the user of the first apparatus by adjusting the transport level window size of the packet in accordance with the level of service subscribed to by the user of the first apparatus [col.5, ln.15 – col.6, ln.17].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Jain in view of Ramanathan by adjusting the transport level window size of the packet based on the level of service subscribed because this feature transfers data reliably and in sequence with congestion control [col.3, lns.26-27]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to accurately estimates user-perceived network throughput without impacting the network performance [col.3, lns.32-34].

6. With respect to claims 18, 28, and 48, Jain further teaches wherein the bandwidth usage is measured as an amount of data per unit of time [col.9, lns.17-41].

7. With respect to claims 21, 31, and 51, Jain further teaches wherein the bandwidth usage is expressed as an average throughput [col.9, lns.17-41].

8. With respect to claims 26 and 56, Jain further teaches wherein said throttling unit compare bandwidth usage to a threshold [i.e. compare calculated to threshold step 73 of fig.5].

9. With respect to claims 37 and 57, Jain further teaches wherein said transport level window size is the TCP window size field of the packet [col.11, lns.1-4].

10. Claims 22, 32, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jain in view of Ramanathan as applied to claims 17, 27, and 47 above, and further in view of Guha, U.S. Patent No. 5,699,369.

11. With respect to claims 22, 32, and 52, Jain in view of Ramanathan do not explicitly show wherein the bandwidth usage is determined using a leaky bucket analysis.

In a communication system, Guha discloses the bandwidth usage is determined using a leaky bucket analysis [col.13, lns.6-16].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Jain in view of Ramanathan, and further in

view of Guha by using a leaky bucket analysis because this feature avoids congestion [Guha, col.13, ln.6]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to allow sources to shape the traffic [Guha, col.13, lns.13-14].

12. Claims 24, 34, 36, and 54 are rejected 35 U.S.C. 103(a) as being unpatentable over Engel et al., U.S. Patent No. 6,519,636 (hereinafter Engel), in view of Gelman.

13. With respect to claims 24, 34, and 54, Jain teaches a gateway [i.e. routers which are also known as intermediate systems or gateways **9**, col.5, lns.45-46] for use in a system wherein a first apparatus [i.e. one of the end system **7**, see fig.1], said gateway, and a second apparatus [i.e. other of the end system **7**, see fig.1] are coupled to a TCP/IP network, wherein the source apparatus, said gateway, and the second apparatus have different IP addresses [fig.1], said gateway comprising:

- a packet receiving unit that is configured to receive a packet addressed at the IP level from the first apparatus to the second apparatus [col.5, ln.44 – col.6, ln.34]; and
- a throttling unit that is configured to throttle the user of the first apparatus by adjusting the transport level window size of the packet in accordance with bandwidth usage associated with the user of the first apparatus, and sending the adjusted packet to the second apparatus [col.10, ln.49 – col.11, ln.4]

- wherein the packet received by said packet receiving unit has, as its source IP address, the IP address of the first apparatus, and has, as its destination IP address, the IP address of the second apparatus [col.6, lns.17-55].

However, Jain does not explicitly show a service plan determining unit that is configured to determine a level of service subscribed to by a user of the first apparatus and a throttling unit that is configured to throttle the user of the first apparatus by adjusting the transport level window size of the packet in accordance with the level of service subscribed to by the user of the first apparatus.

In a communication system, Ramanathan discloses or suggests a service plan determining unit that is configured to determine a level of service subscribed to by a user of the first apparatus [col.4, lns.25-65] and a throttling unit that is configured to throttle the user of the first apparatus by adjusting the transport level window size of the packet in accordance with the level of service subscribed to by the user of the first apparatus [col.5, ln.15 – col.6, ln.17].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Jain in view of Ramanathan by adjusting the transport level window size of the packet based on the level of service subscribed because this feature transfers data reliably and in sequence with congestion control [col.3, lns.26-27]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to accurately estimates user-perceived network throughput without impacting the network performance [col.3, lns.32-34].

Further, Jain in view of Ramanathan do not explicitly show wherein the bandwidth usage is determined using a leaky bucket analysis.

In a communication system, Guha discloses the bandwidth usage is determined using a leaky bucket analysis [col.13, lns.6-16].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Jain in view of Ramanathan, and further in view of Guha by using a leaky bucket analysis because this feature avoids congestion [Guha, col.13, ln.6]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to allow sources to shape the traffic [Guha, col.13, lns.13-14].

14. With respect to claim 36, Jain further teaches wherein said throttling unit compare bandwidth usage to a threshold [i.e. compare calculated to threshold step 73 of fig.5].

Response to Arguments

15. Applicant's arguments with respect to claims 17-39 and 47-58 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi V Tran
Patent Examiner
Art Unit 2151

NT

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER